

Fig. 1a

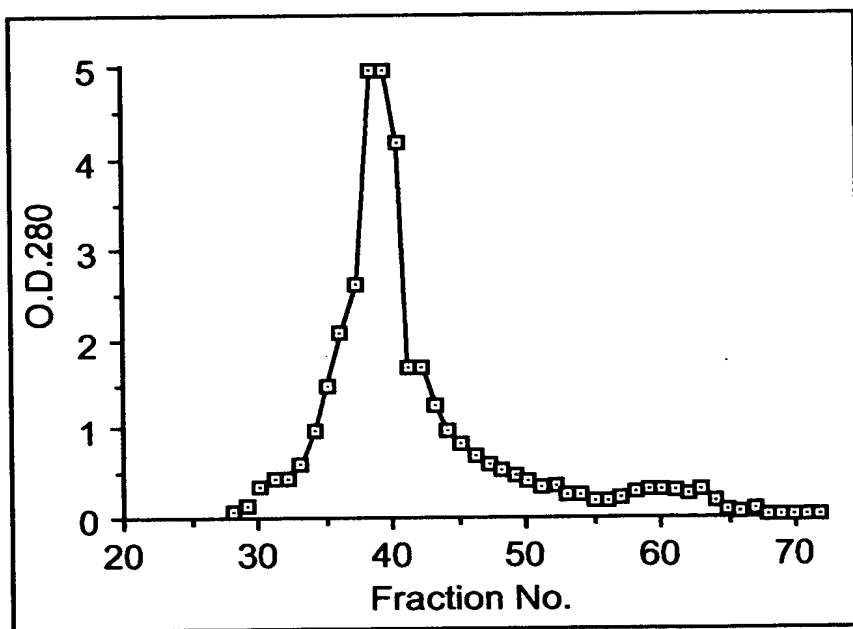


Fig. 1b

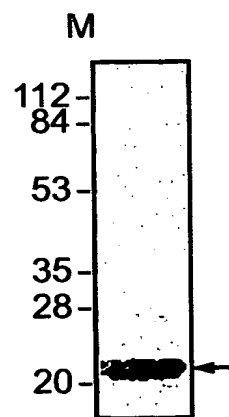


Fig. 1c

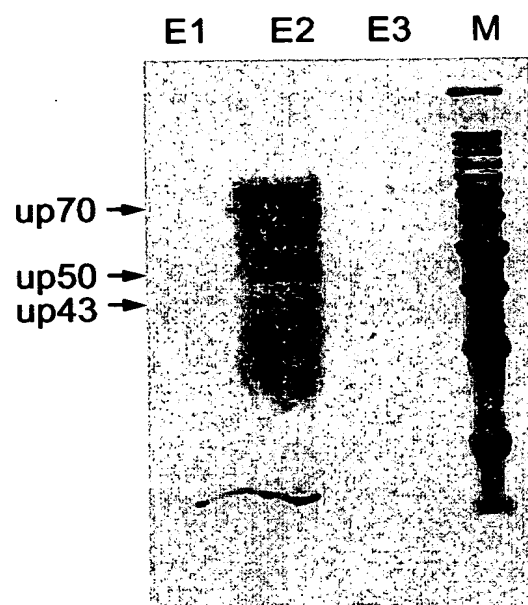


Fig. 2

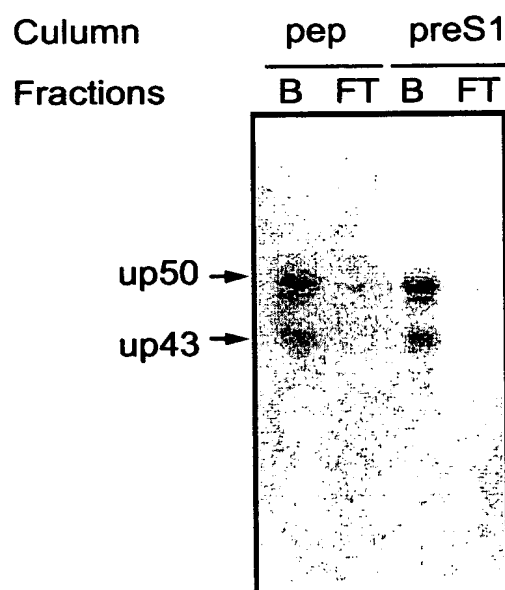


Fig. 3

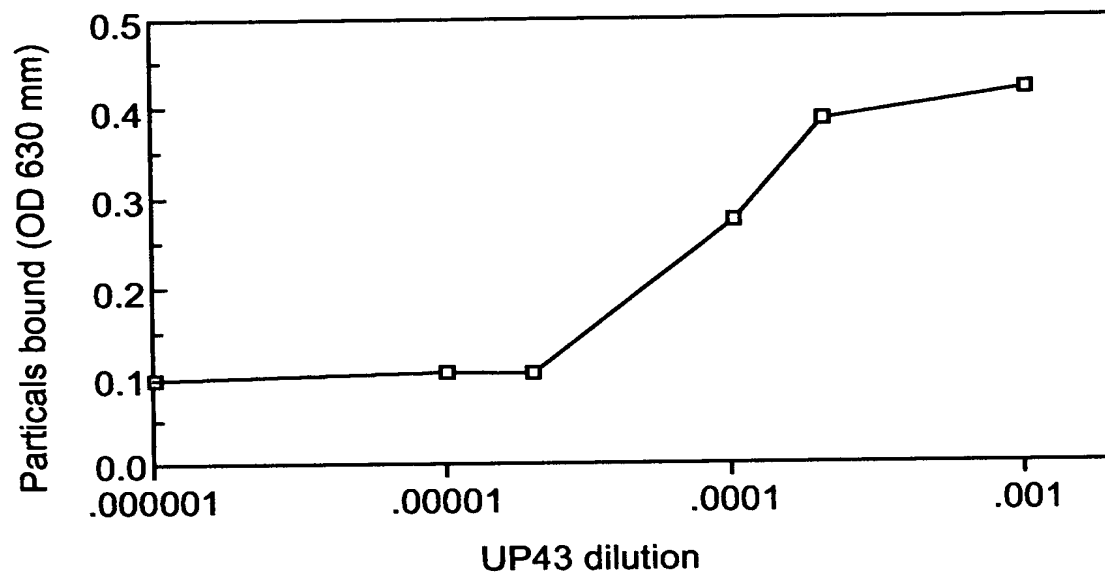


Fig. 4

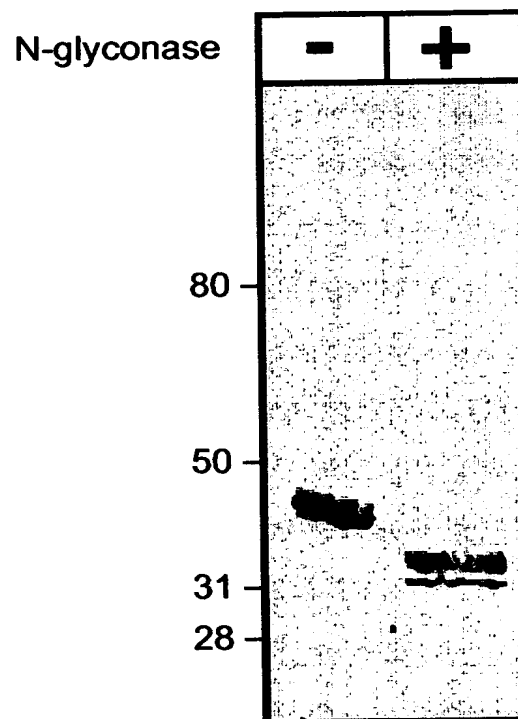


Fig. 5

human	s1-5	MATSGVLPGG	GFVASAAAVA	GPEMQTGRNN	FVIRRNPADP	QRIPSNPSHR
human	s1-5	IQCAAGYEQS	EHNVQDIDE	CTAGTHNCRA	DQVCINLRGS	FACQCPPGYQ
human	s1-5	KRGEQCVDID	ECTIPPYCHQ	RCVNTPGSFY	CQCSPGFOLA	ANNYTCVDIN
human	s1-5	ECDASNQCAQ	QCYNILGSFI	CQCNOQYELS	SDRLNCEDID	ECRTSSYLCO
human	s1-5	YQCVNEPGKF	SCMCPQGYQV	VRSRTCQDIN	ECETTNECRE	DEMCWNYHGG
human	s1-5	FRCYPRNPCQ	DPYILTPENR	CVCPVSNAMC	REL PQSIVYK	YMSIRSDRSV
up43					K	YMSIRS
human	s1-5	PSDIFQIQAT	TIYANTINTF	RIKSGNENGE	FYLRQTSPVS	AMLVLVKSL
up43				KSGNENGE	FYLR	AMLVLVKSL
human	s1-5	GPREHIVDLE	MLTVSSIGTF	RTSSVLRLTI	IVGPF	IVGPF

Fig. 6

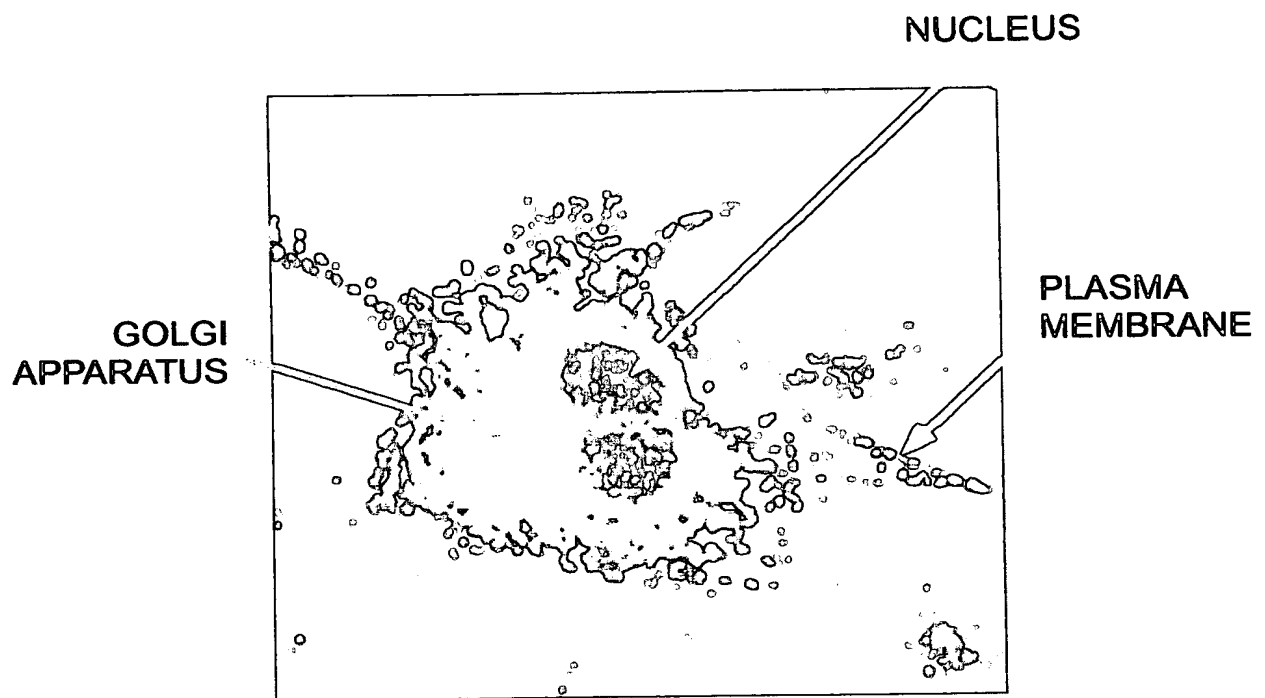


Fig. 7

UP50

MPGIKRILTV TILALCLPSP GNAQAQCTNG FDLDRQSGQC LDIDECRTIP
EACRGDMMCV NQNGGYLCHS RTNPVYRGPY SNPYSTPYSG PYPAAAPPLS
APNYPTISRP LICRFGYQMD ESNQCVDVDE CATDSHQCNP TQICINMKGG
YTCSCTDGYW LLEGQCLDID ECRYGYCQQL CANVPGSYSC TCNPGFTLNE
DGRSCQDVNE CATENPCVQT CVNTYGSFIC RCDPGYELEE DGVHCSDMDE
CSFSEFLCQH ECVNQPGTYF CSCPPGYILL DDNRSCQDIN ECEHRNHTCN
LQOTCYNLQG GFKCIDPIRC EEPYLRI SDN RCMCPAENPG CRDQPFITLY
RDMDVVSGRS VPADIFQMQA TTRYPGAYYI FQIKSGNEGR EFYMRQTGPI
SATLVMTRPI KGPREIQLDL EMITVNTVIN FRGSSVIRLR IYVSQYPF

Fig. 8

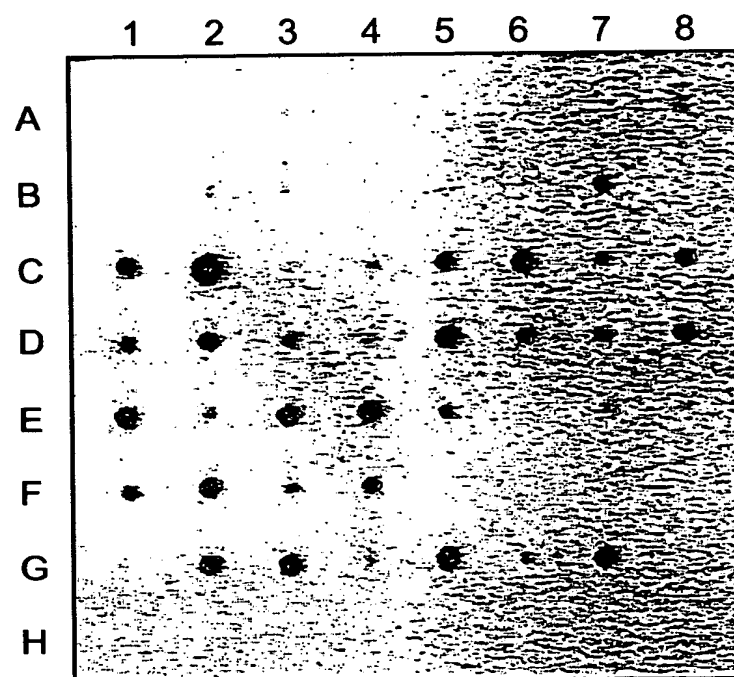


Fig. 9a

	1	2	3	4	5	6	7	8
A	whole brain	amygdala	caudate nucleus	cerebellum	cerebral cortex	frontal lobe	hippocampus	medulla-oblongata
B	occipital lobe	putamen	substantia nigra	temporal lobe	thalamus	sub-thalamic nucleus	spinal cord	
C	heart	aorta	skeletal muscle	colon	bladder	uterus	prostate	stomach
D	testis	ovary	pancreas	pituitary gland	adrenal gland	thyroid gland	salivary gland	mammary gland
E	kidney	liver	small-intestine	spleen	thymus	peripheral leukocyte	lymph node	bone marrow
F	appendix	lung	trachea	placenta				
G	fetal brain	fetal heart	fetal kidney	fetal liver	fetal spleen	fetal thymus	fetal lung	
H	yeast total RNA 100 ng	yeast cRNA 100 ng	E. Coli rRNA 100 ng	E. Coli DNA 100 ng	Paly (HA) 100 ng	human C DNA 100 ng	human DNA 100 ng	human DNA 500 ng

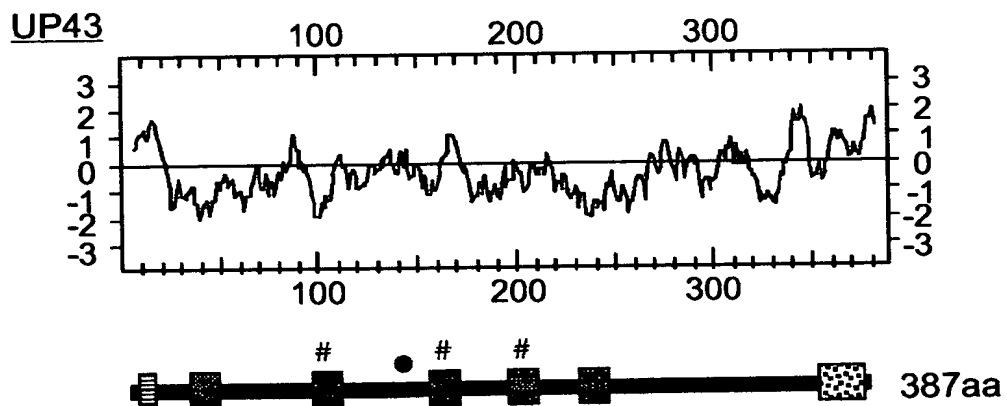
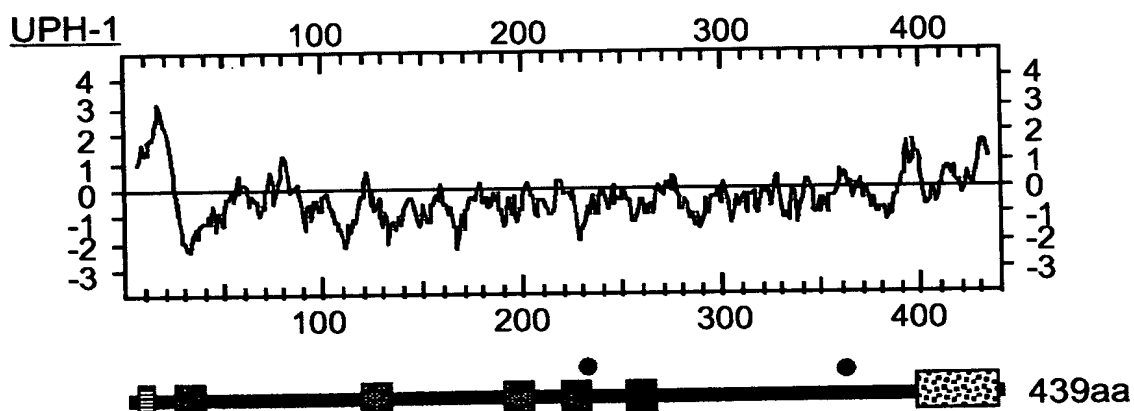
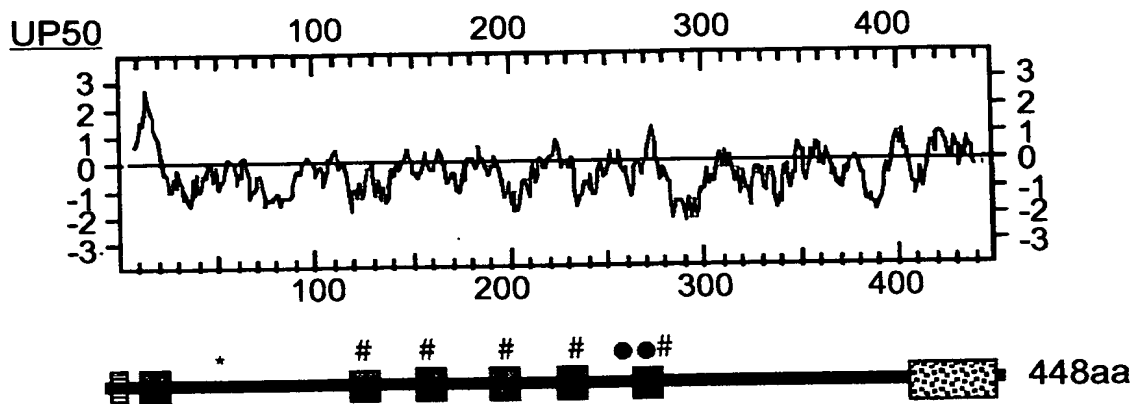
Fig. 9b

				50
UPH1	MLPCASCLPG	SLLLWALLLL	LLGSASPQDS	EEPDSYTE.....
UP50	MPGIKRILTV	TILALCLPSP	GNAQAQCTNG	FDLDRQSG.....
UP43	MLKALFLTML	TLALVKSQDT	EETITYTQCT	DGYEWDVPRQ
				QCKDIDECDI
				100
UPH1	NCRDVNECLT	IPEACKGEMK	CINHYGGYLC	LPRSAAVI.N
UP50	.....	IPEACRGDMM	CVNQNGGYLC	HSRTNPVY.R
UP43	.....	VPDACKGGMK	CVNHYGGYLC	LPKTAQIIVN
				NEQPQQUETQP
				150
UPH1	.....	.....	.....	.....
UP50	.....	.....	YSGPY	PAAAPPLSAP
UP43	AEGTSGATTG	VVAASSMATS	GVLPGGGFVA	SAAAVAGPEM
				QTGRNNFVIR
				200
UPH1	HGEGPPPPVP	PVNTQPLP--	TGYEPDDQDS	CVDVDECAQA
UP50	.....	PTISRPLICR	FGYQMDESNO	CVDVDECATD
UP43	RNPADPQRIP	SNPSHRIQCA	AGYEQSEHNV	CQDIDECTAG
				THNCRADQVC
				250
UPH1	HNLPGSYQCT	CPDGYRKIGP	ECVDIDECRY	...RYCQHRCVN
UP50	INMKGGYTCS	CTDGYWLLEG	QCLDIDECRY	...GYCQQLCAN
UP43	INLRGSFACQ	CPPGYQKRGE	QCVDIDECTI	PPYCHQRCVN
				TPGSFYCQCS

Fig. 10

	251		300
UPH1	PGFQLGPNR	SCVDVNECDM	GAPCEQRCFN SYGTFLCRCH QGYELHRDGF
UP50	PGFTLNEDGR	SCQDVNECAT	ENPCVQTCVN TYGSFICRCD PGYELEEDGV
UP43	PGFQLAANNY	TCVDINECDA	SNQCAQQCYN ILGSFICQCN QGYELSSDRL
	301		350
UPH1	SCSDIDECSY	SSYLCQYRCV	NEPGRFSCHC PQGYQLL.AT RLCQDIDECE
UP50	HCSDMDECSF	SEFLCQHECV	NQPGTYFCSC PPGYILLDDN RSCQDINECE
UP43	NCEDIDECRT	SSYLCQYQCV	NEPGKFSCMC PQGYQVVR...S RTCQDINECE
	351		400
UPH1	SGAHQWSEAQ	TCVNFHGGYR	CVDTNRCVEP YIQVSENRCCL CPASNPLCRE
UP50	HRNHTCNLQQ	TCYNLQGGFK	CIDPIRCEEP YLRISDNRCM CPAENPGCRD
UP43	T...TNECREDE	MCWNYHGGFR	CYPRNPCQDP YILTPENRCV CPVSNAMCRE
	401		450
UPH1	QPSSIIVHRM	TITSEAEPA	DVFQIQATSV YPGAYNAFQI RAGNSQGDFY
UP50	QPFTILYRDM	DVVSGRSVPA	DIFQMQATTR YPGAYYIFQI KSGNEGREFY
UP43	LPQSIVYKYM	SIRSDRSVPS	DIFQIQATTI YANTINTFRI KSGNENGFEY
	451		500
UPH1	IRQINNVSAM	LVLARPVTGP	REYVLDLEMV TMNSLMSYRA SSVLRLTVFV
UP50	MRQTGPISAT	LVMTRPIKGP	REIQLDLEMI TVNTVINFRG SSVIRLRIYV
UP43	LRQTSPVSAM	LVLVKSLSGP	REHIVDLEML TVSSIGTFRT SSVLRLTIIV
	501		
UPH1	GAYTF		
UP50	SQYPF		
UP43	GPFSE		

Fig. 10 (Cont.)








-  Transmembrane Domain
-  Aspartic Acid and Asparagine Hydroxylation Site.
-  Signal Peptide
-  Cell Attachment Sequence
-  Glycosylation Site

Fig. 11